Please replace the claims with the following:

1. (Withdrawn) Method for producing alloy wheels for motor vehicles, each wheel (1) comprising a hub (3) and a rim (5); the method including realising a finishing operation with a cutting machine tool; the method comprising the steps of measuring the unbalance of said wheel (1), and checking whether said unbalance is lower than an unbalance acceptability value (M1.sub.max; M2.sub.max) by means of a control unit (35); calculating a mass (M1; M2) to be removed and the respective phase (F1; F2) with respect to a determined point on the wheel (1); said unbalance being identified by said mass (M1; M2) and by said phase (F1; F2); the method being characterised by calculating a first mass and a second mass (M1, M2) to be removed and the respective first and second phase (F1, F2), said first and second mass (M1; M2) being separated from each other along the axle (2) of the wheel (1).

2. (Withdrawn) Method according to claim 1, characterised by calculating a first and a second simulated mass (MS1, MS2) and the respective first and second simulated phase (FS1, FS2) in working conditions of the wheel (1), said first and second simulated mass (MS1; MS2) being separated from each other along the axle of the wheel; and by removing the first simulated mass (MS1) when the first simulated mass (MS1) is not lower than a first unbalance acceptability value (M1.sub.max) and by removing the second simulated mass (MS2) when the

second simulated mass (MS2) is not lower than a second unbalance acceptability value (M2.sub.max).

3. (Withdrawn) Method according to claim 2, characterised by removing the first and the second simulated mass (MS1; MS2) from the wheel (1) to compensate the unbalance when the unbalance is not acceptable.

4. (Withdrawn) Method according to claim 3, characterised in that the finishing machining process, the checking of unbalance and the possible removal of the first and second simulated mass (MS1; MS2) are carried out on a single cutting machine tool (24).

5. (Withdrawn) Method according to claim 2, characterised by calculating the first and second simulated mass (MS1; MS2) according to the first and second mass (M1; M2) and the first and second phase (F1; F2) and the mass of a valve (MV) and the phase of the valve (FV).

6. (Withdrawn) Method according to claim 2, characterised by calculating a first and second geometry (G1; G2) of the respective first and second simulated mass (MS1; MS2) according to the geometry (GR) of the wheel (1) and the specific weight (PR) of the wheel (1).

7. (Withdrawn) Method according to claim 6, characterised by calculating the first and second geometry (G1; G2) of said first and second simulated mass (MS1; MS2) according to the type of machining (LT) selected.

8. (Withdrawn) Method according to claim 7, characterised by determining the first and second coordinates (C1; C2) of said first and second geometry (G1; G2) with respect to a point of reference on the wheel (1).

9. (Withdrawn) Method according to claim 8, characterised by transferring the first and second coordinates (C1; C2) to a numerical control (38) of the cutting machine tool (24).

10-15. (Cancelled).

16. (New) A system for producing alloy wheels for motor vehicles, each wheel comprising a hub and a rim;

the system comprising:

a vertical lathe, which is configured for carrying out a machining finishing operation; and

a control unit configured for:

detecting an unbalance of said wheel;

checking whether said unbalance falls within an unbalance acceptability value; and

calculating a first simulated mass and a second simulated mass to be removed and a respective first simulated phase and second simulated phase with respect to a determined point on the wheel and as function of a mass of a valve and a phase of the valve;

said unbalance being identified by the first and second simulated masses and by the first and second simulated phases;

wherein the first and second simulated masses are separated from each other along the axle of the wheel.

17. (New) The system of claim 16, wherein the vertical lathe is configured for checking the first and second simulated masses of the unbalance acceptability with respect to a first unbalance acceptability value and a second unbalance acceptability value.

18. (New) The system of claim 17, wherein the vertical lathe is configured for removing said simulated masses from said wheel to compensate for the unbalance, when at least one of the first and the second masses is not lower than the respective first and second unbalance acceptability values.

19. (New) The system of claim 18, wherein the vertical lathe comprises sensors for detecting the unbalance;

the control unit being configured for calculating a first coordinate and a second coordinate for said respective said first and second simulated masses; and

the vertical lathe further comprises a numerical control configured to acquire said coordinates, and being configured to carry out the machining finishing operation, to check the unbalance and remove the first and second simulated masses.

20. (New) The system of claim 18, wherein the vertical lathe comprises sensors for dynamically detecting the unbalance and means for calculating the first and second masses in correspondence of a first plane and a second plane along an axis of said wheel.

21. (New) The system of claim 18, wherein the control unit is configured for calculating the first and second simulated masses as function of the first and second masses and the first and second phases and the mass of the valve and the phase of the valve.

22. (New) The system of claim 18, wherein the control unit is configured for

calculating a first geometry and a second geometry of the respective first and second simulated masses as a function of a geometry of the wheel and a specific weight of the wheel.

23. (New) The system of claim 22, wherein the control unit is configured for determining the first and second coordinates of said first and second geometries with respect to a point of reference on the wheel.

24. (New) A system for producing alloy wheels for motor vehicles, each and as function of a mass of a valve and a phase of the valve wheel comprising a hub and a rim;

the system comprising:

a vertical lathe, which is configured for carrying out a finishing operation; and

a control unit configured for:

detecting the unbalance of said wheel,

checking whether said unbalance falls within an unbalance acceptability value,

calculating a simulated mass to be removed and a respective simulated phase with respect to a determined point on the wheel;

said unbalance being identified by said simulated mass and by said

simulated phase; and

a slide to support a cutting tool configured to perform a lathe turning operation; and

a numerical control configured to control a position of the cutting tool under the control of the control unit as function of the simulated mass and a simulated phase.

25. (New) The system of Claim 16, where the control unit simulates the mass of the valve.

26. (New) The system of claim 25, where the control unit calculates the simulated mass to be removed and the respective simulated phase with respect to the determined point on the wheel as function of a mass of a valve and a phase of the valve.

27. (New) The system of Claim 26, where the control unit simulates the mass of the valve.